中国原尾虫的研究:康蚖属的一新种*

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一九七八年秋,日本原尾虫学家今立源太良博士访华讲学、交流学术经验,在杭州共同考察过程中,于玉泉、灵隐和梅家坞等地采得一批原尾虫标本,经鉴定发现其中有两个新种,并商定在中国和日本各发表一种,以志中日友谊。

正模标本保存于中国科学院上海昆虫研究所,副模标本保存于日本东京国立科学博物馆。

金色康蚖 Condeellum chrysallis Imadaté et Yin 新种

虫体淡黄色,前附和腹部第 VIII 节以后均为金黄色。全长 830—960 微米。 头卵圆形,长 100—110 微米,宽 64—73 微米;前端具短喙,长约 10 微米。口器与短跗康蚖者相似(图 2)。 假眼明显地分成左右两部分,长 6.0 微米,宽 6.0 微米,并具较短的"杆"部,杆长 3.0 微米,头眼比=16—18(图 3)。 颚腺形状与短跗康蚖者近似: 具桃形膨大部,其基端腺管扭曲折转,末端膨大如小球(图 4—5)。

前胸足附节长 45-48 微米,爪长 14-16 微米,附爪比=3.0-3.4。中垫长 3 微米,垫爪比=0.19-0.21。 前對感觉刚毛甚少,与本属其他种类者同, t-1 与 t-2 尖细,基端比=1.1, t-3 长 8-9 微米。 外侧感觉刚毛 a 长约 10 微米,与 t-3 形状相同。 b 与 f 的形状相似,长 6 微米。 内侧感觉刚毛

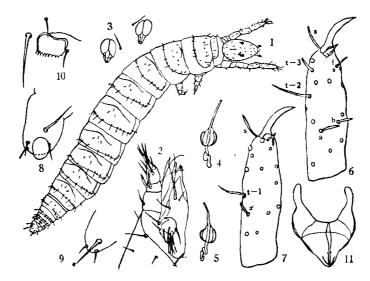


图 1-11 金色康妧 Condeellum chrysallis Imadate et Yin 新种

1.雌虫整体背面观; 2.口器; 3.假眼; 4-5.颚腺; 6.前跗外侧面观; 7.前跗内侧面观; 8.第 II 腹足; 9.第 III 腹足; 10.栉梳; 11.雌性外生殖器。

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^{*} 标本由作者与郭培福、金根桃等同志采集,图版由林爱莲同志复恩。

金色康蚖 Condeellum chrysallis 新种 胸腹部毛列表

	龄 期	第 11 幼 虫	若 虫	成 虫
节数		毛列 初生和次生毛	毛列 再生毛	毛列 补生毛
	胸 I	4 1.2	4	6 , 1
	п	$ \begin{array}{c c} 6 & A2 \cdot 4 \cdot M \\ \hline & P1 \cdot 1' \cdot 2 \cdot 3 \cdot 4 \cdot 4' \end{array} $	6 12	$\frac{6}{12}$
	ш	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6 12	6 14 p.5
	腹口	0 12	2 A 1	2 12
背	п—п	0	2 A1	$\frac{2}{14}$
	IV	0	2 A 1	2 14
	V—VI	0	2 A I	2 14
	VII	14 P1 · 2 · 2 · 3 · 4 · 4 · · 5	4 A1.5	4 (1)
面		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	6
1	VIII	12 P1.1'.2.3.4.5	12	12
	IX	8	12	12
	X		8	10
	XI		6	6
	尾	9	9	9
	胸 I	$\frac{2-2}{4}$ A1 · M P1 · 2	$\left \begin{array}{c c} \frac{2-2}{6} \\ \end{array} \right $ P 3	$\frac{2-2}{6}$
	II	$\frac{4-2}{4} \begin{vmatrix} A1 \cdot 2 \cdot M1 \\ P1 \cdot 2 \end{vmatrix}$	4-4 M 2	4-4
	III	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6-4 M 2	$\frac{6-4}{4}$
		$\frac{4}{2}$ A1·2	4	4 4
腹	IIIII	2 A1	4 A2	4/5
	IV	2 A1	4 A 2	4/8
	v	2 A1	4 A 2	$\frac{4}{8}$
	VI—VII	2 A1	8 P1' 4 A2 9 P1'	$\frac{4}{9}$
面	VIII	7 Pc · 1 · 2 · 3 4 1.2	9 P 1'	6
	tx	4 1.2	4	4 (2)
	X		4	4
	XI		2	6
	尾	8	8	6

注(1) 部分标本为 $\frac{3}{18}$, A 1 缺一边; (2) 个别标本为 3。

a'的形状、大小与 b 相似(图 6-7)。

中胸足跗节长 16-18 微米,爪 13-14 微米;后胸足跗节长 19 微米,爪长 14 微米。

第 I—II 腹足均为 2 节,各生刚毛 4 根;第 III 腹足 1 节,生刚毛 3 根(图 8—9)。

胸、腹部各节的毛序见附表。

第 VIII 腹节背、腹面均有横行花纹; 栉梳马鞍形, 后缘生 8—10 齿; 无前齿, 但自栉梳前缘近中部处, 有一条向外斜出的花纹, 近栉梳的一端具有微细的齿(图 10)。

雌性外生殖器具尖形的端阴刺(图11)。雄虫未发现。

正模: ♀,杭州玉泉,1978-XI-6。

副模: ?,杭州灵隐寺, 1973-VI-12。

金色康蚖与日本的 Condeellum matobai Imadaté 1974 很相近,不但胸、腹部各节的毛列数目几乎相同,而且前跗节长度亦同。二者的主要区别在于颚腺的形状完全不同。

第 II 幼虫: 全长 680 微米。头长 80 微米,宽 64 微米,喙长 10 微米。假眼与成虫同。前跗长 38 微米,爪长 13 微米;中跗长 14 微米,爪 12 微米;后跗长 16 微米,爪 13 微米。

若虫: 全长 710-723 微米。头长 90 微米,宽 67-70 微米,喙长约 10 微米。前跗长 41-42 微米, 爪长 13-14 微米。

STUDIES ON THE CHINESE PROTURA: A NEW SPECIES OF THE GENUS CONDEELLUM

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The authors have made a Collection of Protura in Hongzhou in the autumn of 1978. In this collection two species were identified as new to science. Agreement was delightfully made to publish one new species in Chinese publication and another in japanese publication to remark the friendship and coorperation of the Sino-japanese entomologists.

The holotype was preserved in Shanghai Institute of Entomology, Academia Sinica, and the paratype in The National Science Museum of Japan.

Condeellum chrysallis Imadaté et Yin, sp. nov.

Total length of the expanded females are 830—960 μ . On foretarsus and the last 5 segments of the abdomen are golden in colour. Head oval, 100—110 μ in length, 64—73 μ in width, with a short rostrum about 10 μ in length. The mouth parts are similar to those of C. brachytarsus Yin 1977 (Fig. 2). The pseudoculus $6 \times 6 \mu$, is distinctly divided into two parts and has a small lever about 3μ long, PR = 16—18 (Fig. 3). The filamento di sostegno of maxilla has peach-shaped dilatation and short twisted proximal part as in C. brachytarsum (Figs. 4—5).

Foretarsus is 45—48 μ in length and claw 14—16 μ , TR = 3.0—3.4. Empodium is relatively short, 3 μ in length, EU = 0.19—0.21. The foretarsal sensillae are very

few as in other species of this genus. Dorsal sensilla t-1 and t-2 are thin and pointed, BS = 1.1. t-3 is short and blunt, 8—9 μ in length. Exterior sensilla a is subequal to t-3 both in shape and in length; b and f are a little shorter and thiner than a. Interior sensilla a' is similar to b (Figs. 6—7).

Middle tarsus 16—18 μ long and hind tarsus 19 μ long, claws 13—14 μ long, and have long empodia and tunica-lobes.

The 1st and 2nd abdominal appendages are 2-segmented, each with 4 setae and the 3rd one is unisegmented with 3 setae (Figs. 8—9).

Transverse lines are existing on dorsal and ventral surfaces of abdomen VIII. The comb is saddle shaped with 8—10 small teeth and no anterior tooth was observed, but the inner end of an oblique line with tiny little pectines is connected with the dorsal ridge of the comb (Fig. 10).

The female squama genitalis has a pointed acrostylus. (Fig. 11) Larva II and maturus junior are also recorded.

Holotype: Q. Jade Spring, Hongzhou, 1978-XI-6.

Paratype: ♀, Ling-yin Temple, Hongzhou, 1973-VI-12.

Notes: This new species is close related to the Japanese species Condeellum matobai Imadaté 1974, not only the thoracic and abdominal chaetotaxy are nearly the same but also the size of the foretarsus. However we can clearly distinguish them by the shape of the filamento di sostegno of maxilla.